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ENGLAND'S FOOD-SUPPLY IN TIME OF WAR.

BY LIEUTENANT CARLYON BELLAIRS, R.N.

FOR a number of years there has been a considerable agitation in Great Britain concerning the dependence of the country on oversea supplies of food.

The psychological factor has assumed great importance in British preparations, so much so that a proposal involving diversion of money to some fanciful scheme is frequently justified by a Cabinet Minister on the sole ground that it serves to calm the public mind. That the case is familiar to Americans was shown in the war with Spain when, under a weak administration, we find that, in the words of a member of the Navy Board, Captain Mahan, "the flying squadron was kept in Hampton Roads to calm the fears of the seaboard." Citing this instance, the Royal Commission on the Supply of Food and Raw Material in War (1905) add that, owing to geographical position, "our risk is greater than their risk." It is beside my immediate purpose to expose this fallacy about the safety of distance, or to show how, if Hampton Roads and the Canary Islands had been as near to each other as the English Portland and the French Brest, Cervera's squadron would have been, to use a military expression, "contained" by a watching force from the outset of the war. Thus, the safety of Australia does not lie in its distance from a possible naval attack, but in the proximity of British naval forces to the European naval bases. War is wholly a matter of perspective, which changes sharply according to the risks run. If the naval forces present insure risks to the enemy which, for him, make "the game not worth the candle," the position of commerce is precisely that of the Japanese in the vicinity of Japan and the Gulf of Pechili during the war. Even the transports sailing singly, like ordinary merchant vessels, enjoyed relative immunity from attack. To obtain an idea of the perspective of the situation, it may be pointed out that the risks run proved to be less than those incurred from ordinary navigation in the way of grounding, fire or collision, which are what we cheerfully accept every day of our lives. On the other hand, Russian shipping was entirely arrested, as the Port Arthur fleet was unable to afford adequate protection.

A further consideration is that, apart from torpedo craft, which have never proved of the slightest utility for attacks on trade routes, and have never been able singly to achieve anything against moving vessels, the only ships capable of maintaining themselves at sea are the very expensive, fast, armored cruisers, which can do so on their coal-supply for about a fortnight. So clearly is this recognized that none of the great maritime Powers is now building unarmored ships. Of armored cruisers, no nation except Great Britain has a sufficient number for the existing requirements of her fleets as lookout vessels. To suppose that an admiral will deprive his fleet of eyes is to credit European sailors with an unusual degree of stupidity. He cannot use unarmored vessels for this latter purpose, as they could not push home a reconnaissance nearer than ten thousand yards, and the vessels used must obviously be fast ones. Every time she proceeds to coal, the commerce-destroyer runs the gravest risk. In the American Civil War, three of the Confederate cruisers were lost through inability to obtain coal. As examples of exaggerated notions concerning commerce-destroyers, I take the record of three typical French cruisers. The "*Châteaurenault*" was supposed to be able to steam from Toulon to Saigon without recoaling, and a committee reported that she could not get as far as Singapore and was recoaled at Colombo. The "*Guichen,*" ordered to steam full speed to China, managed to attain 14½ knots. The "*Jurien de la Gravière,*" designed for a coal endurance of 9,300 miles, was proved by trials to have one of 4,000 miles, while the coal, distributed in 70 bunkers, was exceedingly difficult to stoke. These are typical modern French cruisers; and to regard them as constituting a menace to commerce would only occur to timid persons accustomed to run away from every difficulty that presents itself. The privateer or frigate could always escape from a battle-ship; but these cruisers would incur risks from battle-ships built for 18 knots. Is it likely that they are going to deplete their complement to furnish prize crews, when it is notorious that, if the engine-room is not assisted by deck hands, war-ships can only proceed at two-thirds power? And for what purpose? Of ten British steamers, eight are tramps of slow speed. If one is captured, she can only be taken into a national port at her own slow speed. If the prize is sunk, the crew must be accommodated, and war-ships have but little room to spare for passengers. The cruiser is of priceless value in war; and she is to be risked for an operation which can have no influence on the war, and which, if it could be repeated nearly a hundred times, would only inflict a loss of one per cent. on the British mercantile marine. The eight Confederate steamers in the American Civil War had practically a clear field, for no real attempt was made to catch them. They captured only three steamers. Of the two million tons of American sailing-ships, they managed to capture 206 vessels ranging from fishing-craft up. In such operations, five of them were greatly helped by their auxiliary sail-power, enabling them to wait for vessels for months at a time without recoaling, while the other three were captured through their dependence on coal. In spite of these advantages, a Select Committee in America, in 1869, found that only five per cent. of the decline in American tonnage was due to actual captures.

In no single case in maritime history have the operations of commerce-destroyers produced the slightest effect on the issue of the war. The regular operations of fleets have again and again resulted in the total suspension of oversea commerce. Thus, a naval battle, exactly one hundred years ago, caused British insurance rates to tumble down eighteen per cent., and a Select Committee on Marine Insurance reported four years after Trafalgar that, though the total value of the oversea and coasting trade was estimated by them at £320,927,000, only £162,539,000 of this was insured at all. It certainly appears impressive to state the bare fact, as writers habitually do, that Great Britain lost 10,871 vessels in the French Revolutionary and Napoleonic wars. When, however, we divide by the number of years of war, we find the loss to be only 543 vessels *per annum*, or 2.36 per cent. of the average number on the register. At the present time, the United Kingdom annually loses about this percentage of the total number of vessels on the register through the ordinary accidents of navigation, wrecks and collisions; and she is able out of her shipbuilding resources to replace them by treble the number, or over a million tons in a year. In the French war, she built on an average 925 vessels *per annum*, and in 1810 no fewer than 4,023 of the vessels carrying on trade under the British flag were ships that had been captured from the enemy. So, again, in the American War of 1812-15, Great Britain lost 2,300 vessels and retook 750, giving a corrected loss of 1,550, as against 1,407 she captured from the United States. The operations of the British fleets, however, resulted in the total cessation of the rival commerce.

If now we assume that the experiences of the French wars were to be repeated, and 2.36 per cent. of British ships were to be captured, the risk to Great Britain's supplies would be much lower, for 40 per cent. are carried in neutral bottoms. This would reduce the risk to 1½ per cent. on the total supplies, or about 3½*d.* in the pound. There are, however, reasons for believing that British commerce was exposed to altogether exceptional dangers in the wars from 1793 to 1815, exceptional, that is, under the circumstances of the policy of maritime supremacy being consistently adhered to. Many of these reasons were touched upon in the evidence before the Commission, such as the impossibility of sailing-ships escaping in a zone forming three-eighths of the compass circle according to the direction of the wind, their liability to be becalmed under the land or at important headlands which they sighted for the correction of their charted positions, and the foul winds which often kept them from entering a port for days. Others not less important were not touched upon, but are sufficiently noteworthy. The British merchant vessels, known as "coffin ships," were then the worst sailing-ships in the world, being built to cheat the port dues levied on breadth and length, but not on depth. With crews depleted by the press-gang, they fell an easy prey to the privateers and armed rowboats. They could not purchase safety by varying their routes and hugging neutral shores, as steamers can do.

There is one further argument, and it is one that has to be seriously considered in view of the sweeping proposal of the Royal Commissioners to indemnify all losses through capture by the enemy. Marbot, in his Memoirs, gives an account of how Masséna and other French generals amassed fortunes by secret agreements with British ship-owners. The ships were voluntarily captured, and were then taken in as prizes free of all duty. If national indemnity became the rule in distant trades, over which control could not be exercised so closely as in European waters and the North Atlantic, the tendency would be to over-insure and pay a heavier premium for the sake of claiming a larger indemnity. The proposal is really an amplification of one made by the writer in lectures before the War Course of Senior Naval Officers in 1901, and before the Royal Artillery Institution in 1902, that the British Government should guarantee the North Atlantic and European routes, thus throwing the most remunerative trades into British hands. I made the proposal for purposes of discussion without any great enthusiasm for it; but I felt that it would be quite safe to withdraw the guarantee after the educational influence of a few months of war. It should be noted that one of the chief causes of safety to commerce in war is that of delay created by the passive resistance of the vessel being hunted, and the means, by rockets and other methods, by which she endeavors to attract the attention of possible distant rescuers. Every merchant vessel should persist in the endeavor to escape until in danger of sinking from actual damage inflicted on her. The chase may, in the case of routes like the Channel, North Sea, and Mediterranean, actually be made, in a majority of cases, to draw the commerce-destroyer into the net spread by the defending cruisers.

It might almost appear to be a condition of maritime power that a nation should be driven to seek its food from oversea. The Phœnicians, the Greeks, the Romans and the Dutch have all, in the time of their maritime greatness, been dependent on sea-communications. Great Britain, in addition to being an island, has been driven by the whole condition of her being to seek her future on the sea. No nation has ever drawn its food-supplies from transmarine territories to anything like the same extent. On an average, over 80 per cent. of the wheat and flour, 55 per cent. of the eggs, 53 per cent. of the butter, and 45 per cent. of the meat consumed are imported. Articles such as tea, coffee and sugar are entirely of foreign origin. A very large proportion of the home supply of meat, butter, milk and eggs is dependent on imported feeding stuffs, and the soil of the country on imported fertilizers. We have seen that the situation really turns on the answer to the question as to how far these supplies might be endangered in war. The discussion in Great Britain, however, tends always to the effect of war on prices. The Royal Commission altogether ignored the much more important consideration of the effect of war on wages. They successfully show that no rise of prices took place in Japan on the outbreak of war. They permitted, however, an old fallacy to be revived in evidence about the rise in price of wheat in the Crimean War, as the result of the Russian supply being cut off. The important point was, surely, to examine the statistics of pauperism as an indication of the effect of the rise. If this had been done, it would have been found that pauperism was absolutely stationary, though population was going up. It was a bad oversight not to point out that, in the first year of any prospective maritime war, Great Britain would probably be carrying on her industrial work under the extraordinary stimulus of a Government disbursement for the purpose of war of about £30 per adult male worker in the country, the money being mainly borrowed from posterity. This cause undoubtedly operated in the French Revolutionary War, when, in spite of the inventions of labor-saving machinery, wages undoubtedly rose, while it is impossible to trace any considerable rise of price in wheat until after several years of war. Indeed, in 1800, Pitt pointed out that, in the war years of 1796-1799, "the price sunk perhaps too low for the fair profit of the farmer." The great drop of 40 per cent. in wages and the resultant distress took place after the conclusion of the war. Terrible as the strain of so prolonged a war undoubtedly was, it would not have been so severe, but for the depreciation of the currency, which amounted to nearly 21 per cent. in 1812. After a supreme navy, it is plainly indicated by history that the financial credit of the country is the most important issue.

In the first half of the nineteenth century, the world's wheatfield was still a very limited one so far as Great Britain was concerned. The development of steamers, railways, canals and telegraphs has since enabled her to place the whole world under contribution.

Roughly, the United States retains 52,000,000 quarters of wheat and exports the remainder of her production. Consequently, in 1902 she exported 28,500,000 quarters, and in 1904 only 14,500,000, and of this less than 8,000,000 found its way to the United Kingdom. Yet, though the loss of imports from the

United States amounted to nearly a fourth of her total consumption, the balance was far more than made up to Great Britain by the heaviest total import on record from all parts. Her wants, we see clearly, can be complied with in a fortnight from a cabled order at any time of the year. We are, in a phrase, no longer dependent upon a fickle climate.

It is in the above circumstances that so nice a balance has been brought about between supply and demand that there have been occasions when the stock of wheat in Great Britain has fallen so low as to afford only six weeks' supply to a population consuming nearly 600,000 quarters (one quarter = 480 lbs.) of wheat in a week. To put it in another way, the population consumes 130,000 tons a week, so that, if it depended entirely on supplies from abroad, about 26 steamers, averaging a carrying capacity of 5,000 tons, ought to arrive every week with supplies. The figure 5,000 tons is selected, as this is the average dead-weight capacity of many liners and cargo-steamers. So long as there is a margin of safety, such as the six weeks' minimum supply already mentioned, it is immaterial if 32 steamers arrive one week and only 20 the next week. At this point, we may usefully note that almost exactly a thousand steamers a week enter the ports of the United Kingdom, and, of these, six hundred are British; so that, in the above assumption of 26 steamers, carrying wheat, only 60 per cent., or 16 of them, undergo war risks. If, in these circumstances, we place the war risks at the very high limit of six per cent., then one out of each group of 16 British steamers would be reckoned as captured. Obviously, if the prices in Great Britain are materially higher than on the Continent, the natural tendency would be to run a couple of extra British or neutral steamers in with wheat, and so more than discount the 5,000 tons of wheat per week lost by capture. Of course, in practice, the eggs are not nearly so much in a few baskets, for the wheat is spread out as part cargoes in a large proportion of the thousand steamers arriving every week. In addition, a far greater loss than we have assumed might be cheerfully borne without replacement, and still leave the wheat consumed per head of population at a far higher figure than that of Germany.

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